

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1-71. (Canceled)

72. (Currently Amended) An inductively coupled plasma CVD processing system, comprising:

a plasma processing chamber;

a planar dielectric window forming a top wall of the plasma processing chamber;

a substantially planar electrically-conductive coil extending across the planar dielectric window, which inductively couples RF energy into the plasma processing chamber through the planar dielectric window and energizes the process gas into a plasma state;

a substrate support adapted to support a substrate within the processing chamber, such that the substrate lies in a plane parallel to the planar dielectric window; and

a plurality of injector tubes adapted to introduce process gas into the processing chamber, all of the injector tubes being spaced outwardly from the periphery of the substrate when the substrate is supported on the substrate support.

73. (Previously Presented) The system of Claim 72, wherein:

the injector tubes are provided on a first gas ring;

at least some of the injector tubes include an orifice oriented relative to the axis thereof to direct the process gas in an upward direction away from the substrate when the substrate is supported on the substrate support; and

at least some of the injector tubes are oriented in the plasma processing chamber to direct the process gas along the axes thereof that intersect an exposed surface of the substrate at an acute angle when the substrate is supported on the substrate support.

74. (Previously Presented) The system of Claim 72, wherein:

the injector tubes are provided on a first gas ring; and

all of the injector tubes are oriented in the plasma processing chamber to direct the process gas along axes thereof that intersect an exposed surface of the substrate at an acute angle when the substrate is supported on the substrate support.

75. (Currently Amended) An inductively coupled plasma CVD processing system, comprising:

a plasma processing chamber;

a planar dielectric window forming a top wall of the plasma processing chamber;

a substantially planar electrically-conductive coil extending across the planar dielectric window, which inductively couples RF energy into the plasma processing

chamber through the planar dielectric window and energizes the process gas into a plasma state;

a substrate support adapted to support a substrate within the processing chamber, such that the substrate lies in a plane parallel to the planar dielectric window; and

a plurality of injector tubes adapted to introduce process gas into the processing chamber, all of the injector tubes being spaced outwardly from the periphery of the substrate when the substrate is supported on the substrate support and at least one of the injector tubes including an orifice oriented relative to the axis thereof to direct the process gas in an upward direction away from an exposed surface of the substrate when the substrate is supported on the substrate support.

76. (Previously Presented) The system of Claim 72, wherein the injector tubes are detachably connected to a first gas ring made of aluminum which includes outlets adapted to supply process gas into the plasma processing chamber.

77. (Previously Presented) The system of Claim 76, including a second gas ring disposed above or below the first gas ring in the plasma processing chamber.

78. (Previously Presented) The system of Claim 72, wherein a plurality of gas flows from the injector tubes overlap each other in a plane parallel to an exposed surface of the substrate when the substrate is supported on the substrate support.

79. (Previously Presented) The system of Claim 72, wherein each of the injector tubes includes an exit orifice, and each of the exit orifices is spaced the same distance outwardly from the periphery of the substrate when the substrate is supported on the substrate support.

80. (Canceled)

81. (Previously Presented) The system of Claim 72, wherein all of the injector tubes have the same length such that exit orifices of the injector tubes are spaced the same distance outwardly from the periphery of the substrate when the substrate is supported on the substrate support.

82. (Previously Presented) The system of Claim 72, wherein some of the injector tubes have different lengths such that exit orifices of some of the injector tubes are spaced a different distance outwardly from the periphery of the substrate when the substrate is supported on the substrate support.

83. (Previously Presented) The system of Claim 72, wherein all of the injector tubes include an exit orifice spaced outwardly from a periphery of the substrate support.

84. (Previously Presented) The system of Claim 72, wherein the substrate support includes means for maintaining the substrate at a desired temperature when the substrate is supported on the substrate support.

85. (Currently Amended) An inductively coupled plasma CVD processing system, comprising:

a plasma processing chamber;

a planar dielectric window forming a top wall of the plasma processing chamber;

a substantially planar electrically-conductive coil extending across the planar dielectric window, which inductively couples RF energy into the plasma processing chamber through the planar dielectric window and energizes the process gas into a plasma state;

a substrate support adapted to support a substrate within the processing chamber, such that the substrate lies in a plane parallel to the planar dielectric window, the substrate support including means for maintaining the substrate at a desired temperature; and

(i) a plurality of injector tubes each including an orifice oriented relative to the axis thereof to direct the process gas in an upward direction away from the substrate when the substrate is supported on the substrate support; and/or (ii) a plurality of injector tubes each oriented in the plasma processing chamber to direct the process gas along an axis thereof that intersects an exposed surface of the substrate at an acute angle when the substrate is supported on the substrate support.

86. (Previously Presented) The system of Claim 85, wherein the means for maintaining the substrate at a desired temperature includes an electrostatic

chuck and is adapted to maintain the substrate at a temperature ranging from about 325°C to 375°C when the substrate is supported on the substrate support.

87. (Previously Presented) The system of Claim 85, wherein the substrate support includes a heat transfer gas source which is adapted to supply a heat transfer gas to control the temperature of the substrate to a temperature of about 100°C to 400°C.

88. (Previously Presented) The system of Claim 85, wherein the injector tubes are detachably connected to a first gas ring, the first gas ring includes outlets through which process gas is supplied into the plasma processing chamber, and further including a second gas ring disposed above or below the first gas ring.

89. (Previously Presented) The system of Claim 85, wherein the injector tubes are oriented in the plasma processing chamber to direct the process gas along axes thereof that intersect the exposed surface of the substrate at an acute angle when the substrate is supported on the substrate support.

90. (Previously Presented) The system of Claim 85, wherein the injector tubes include an orifice oriented relative to the axis thereof to direct the process gas in an upward direction away from an exposed surface of the substrate when the substrate is supported on the substrate support.

91. (Previously Presented) The system of Claim 85, wherein a plurality of gas flows from the injector tubes overlap each other in a plane parallel to an exposed surface of the substrate when the substrate is supported on the substrate support.

92. (Canceled)

93. (Previously Presented) The system of Claim 85, wherein each of the injector tubes has the same length.

94. (New) The system of Claim 72, wherein the planar electrically-conductive coil is a single conductive element formed into a planar spiral or a series of concentric rings.